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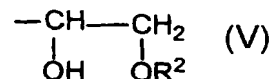
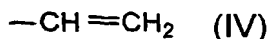
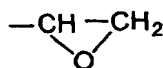
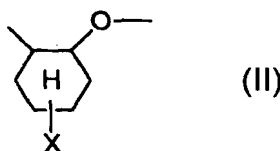
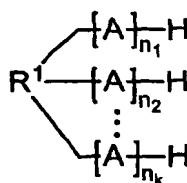
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(54) Title: METHOD FOR PRODUCING A PATTERN FORMATION MOLD



(57) **Abstract:** The method for producing a pattern formation mold includes: a first step of applying to a substrate a radiation-sensitive negative-type resist composition containing an epoxy resin represented by formula (I): (wherein R¹ represents a moiety derived from an organic compound having k active hydrogen atoms (k represents an integer of 1 to 100); each of n₁, n₂, through n_k represents 0 or an integer of 1 to 100; the sum of n₁, n₂, through n_k falls within a range of 1 to 100; and each of "A"s, which may be identical to or different from each other, represents an oxycyclohexane skeleton represented by formula (II): (wherein X represents any of groups represented by formulas (III) to (V)); and at least two groups represented by formula (III) are contained in one molecule of the epoxy resin)), along with a radiation-sensitive cationic polymerization initiator, and a solvent for dissolving the epoxy resin therein; a second step of drying the substrate coated with the radiation-sensitive negative-type resist composition, to thereby form a resist film; a third step of selectively exposing the formed resist film to an active energy beam according to a desired pattern; a fourth step of heating the exposed resist film so as to enhance a contrast of a pattern to be formed; a fifth step of developing the heated resist film, to thereby remove the unexposed area of the resist film through dissolution, thereby forming a patterned layer; and a sixth step of applying to the patterned layer a material other than that of the patterned layer such that spaces present in the patterned layer are filled, at least to some height, with the material, to thereby form a second layer, and removing the second layer, to thereby yield a pattern formation mold.

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